APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/821,170	03/29/2001	Dan Martin Scott	108344.00016	4015

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EXAMINER
WALLACE, SCOTT A

ART UNIT	PAPER NUMBER
2675	

DATE MAILED: 03/16/2005   *16*

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

Office Action Summary	Application No.	Applicant(s)
	09/821,170	SCOTT ET AL.
	Examiner	Art Unit
	Scott Wallace	2675

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _23 April 2004_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _7,9 and 17-23_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _7,9,17-20 and 23_ is/are rejected.

7)☒ Claim(s) _9,21 and 22_ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some *   c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _16   04/23/04_.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

Response to Arguments

1. Applicant's arguments with respect to claims 7, 9, 17-23 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

2. Claim 9 is objected to because of the following informalities: Claim 9 discloses a non-cache volatile storage coupled to a processing platform. The closest part in the specification is in fig 1 the system memory (which must be the non-cache volatile memory) is coupled to the L2 cache. Appropriate correction is required.

3. Claims 21 and 22 are objected to because of the following informalities: Claim 19 discloses needing more than two point pairs to compute georeferencing function. This is at least four points. Claims 21 and 22 disclose at least three points and two points are used to compute the georeferencing function. If claim 19 says you need four, then the three points and two points of claims 21 and 22 are not enough. Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 7, 9, 17-18 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over R2V: Advanced Raster to Vector Conversion Software for Automated Map Digitizing in view of Dawson et al., U.S. Patent No. 4,876,651.

6.　　　As per claim 7, R2V discloses a system that enables the georeferencing of a digital raster map (R2V, pg 2), comprising: a processing platform for executing code capable of georeferencing a digital raster map (R2V, pg 2) by associating points on the digital raster map with corresponding points on a previously georeferenced vector map (R2V, pg 2), wherein the digital raster map and the previously georeferenced vector are displayed in separate areas of a display and share at least a portion of a geographic area in common (R2V, pgs 2 and 3). However, R2V does not disclose a storage platform comprising cache memory for storing at least the digital raster map, the storage platform being coupled to the processing platform. This is disclosed in Dawson et al in the abstract and fig 1. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use cache memory to store the map because this would avoid the delay of accessing the mass memory (abstract).

7.　　　As per claim 9, R2V discloses a system that enables the georeferencing of a digital raster map (R2V, pg 2), comprising: code capable of georeferencing a digital raster map by associating points on the digital raster map with known reference points in the digital raster map (R2V, pg 2). However, R2V does not disclose the processor platform. This would have obvious to one of ordinary skill in the art at the time the invention was made because this is code that needs a processor to function. Also R2V does not disclose a storage platform comprising non-cache volatile storage for storing at least the digital raster map, the storage platform being coupled to the processing platform. This would have been obvious to one of ordinary skill in the art at the time the invention was made to include volatile storage coupled to the processor because this make the access to the data in storage faster.

8.　　　As per claim 17, R2V discloses an apparatus that is capable of geoferencing a raster map (R2V page 2), comprising: means for providing for display of a first map in a first area of a display (R2V page 2); means for providing for display of a second map in a second area of the display that is separate from the first area of the display (R2V page 2), the first map being a digital raster map (R2V page 2), and the second map being a previously georeferenced map (R2V page 2), the first and second maps covering substantially the same geographic area when that are displayed (R2V page 2 and 3 and fig on page 3); means for receiving an entry identifying a first point pair (R2V page 2), one point being on each map (R2V page 2); means for receiving an entry identifying a second point pair (R2V page 2), one point being on

each map (R2V page 2), the corresponding points of the point pairs having the same geographic location on each map (R2V pages 2 and 3); means for assigning to the points on the first map a longitude coordinate and a latitude coordinate which are identical to the longitude coordinate and latitude coordinate of their corresponding points on the second map (R2V page 1); and means for computing a georeferencing function based on pixel coordinates of the first point of each point pair and geographic coordinates of the second point of each point pair (R2V page 2).

9.　　As per claim 18, R2V discloses wherein the points of the point pairs comprise marks on the first map at respective locations and marks on the second map at corresponding locations (R2V page 2).

10.　　As per claim 23, R2V discloses a system for georeferencing a digital raster map (R2V page 2), comprising: a processing platform for executing code capable of georeferencing a digital raster map (R2V pages 1 and 2); and a storage platform comprising facilities for providing for display of a first map in a first area of a display (R2V page 2 and page 3, fig); facilities for providing for display of a second map in a second area of the display that is separate from the first area of the display (R2V, pages 2 and 3, fig), the first map being a digital raster map (R2V,pages 1 and 2), and the second map being a previously georeferenced map (R2V, pages 1 and 2), the first and second maps covering substantially the same geographic area when they are displayed (R2V, pages 2 and 3, fig); facilities for receiving an entry identifying a first point pair (R2V page 2), one point being on each map (R2V, page 2); facilities for receiving an entry identifying a second point pair (R2V page 2), one point being on each map (R2V page 2), the corresponding points of the point pairs having the same geographic location on each map (R2V, page 2); facilities for assigning to the points on the first map a longitude coordinate and a latitude coordinate which is identical to the longitude coordinate and latitude coordinate of their corresponding points on the second map (R2V pages 1 and 2); and facilities for computing a georeferencing function based on pixel coordinates of the first point of each point pair and geographic coordinates of the second point of each point pair (R2V pages 1 and 2). However, R2V does not disclose a storage platform coupled to the processing platform for storing at least a digital raster map. This is disclosed in Dawson et al in the abstract and fig 1. It would have been obvious to one of ordinary skill in the art at the time the invention

was made to have the memory coupled to the processor because this would avoid the delay of accessing

the mass memory (abstract).

11.   Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over R2V as applied to claim

17 above, and further in view of "Accuracy Assessment of Mapping Products Produced from the Star-3i".

12.   As per claim 19, R2V discloses wherein more than two point pairs are identified and are used to

compute the georeferencing function pursuant to a transformation technique (R2V page 2). However,

R2V does not disclose further means for executing a validation check of the georeferencing function

pursuant to a standard deviation technique. This is disclosed Accuracy of Mapping Products in section

4.2 study design. It would have been obvious to one of ordinary skill in the art at the time the invention

was made to use the standard deviation technique to as a validation check with the system of R2V

because using this standard deviation was a well known and efficient way of computing deviation errors.

13.   Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over R2V in view of Accuracy

Assessment of Mapping Products as applied to claim 19 above, and further in view of Blackmer, U.S.

Patent No. 6,505,146.

14.   As per claim 20, R2V does not disclose wherein the means for executing a validation check is

further capable of rejecting a point pair when the point pair deviates by an amount exceeding a

predetermined standard error. This is disclosed in Blackmer in column 8 lines 27-55. It would have been
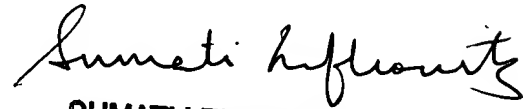
obvious to one of ordinary skill in the art at the time the invention was made to reject data based on deviation from a standard error because this provided a useful way to spot outlier points.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Wallace whose telephone number is 703-605-5163. The examiner can normally be reached on Mon-Fri 7:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on 703-306-0403. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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SUMATI LEFKOWITZ
PRIMARY EXAMINER